

very base. Mr. Malm also found other passages from one form to the other, tending to establish their specific identity: for him, therefore, these forms are *varieties*; while in America, as far at least as my observation goes, the two forms are perfectly distinct, and thus are either distinct species or dimorphic forms of the same species.

Although the technical particulars, into which I was obliged to enter, are too dry for the general reader, the interest attached to the question thus raised reaches beyond the scope of mere descriptive entomology; and this may be my excuse for bringing this matter before the readers of *PSYCHE*. For more details, I refer to my paper in the above-quoted Proceedings.

C. R. Osten Sacken.

BIBLIOGRAPHICAL RECORD.

Authors and Societies are requested to forward their works to the Editor at the earliest date possible. We ask our readers to inform us of the publication especially of those works which are not generally consulted by entomologists.

B. Pickman Mann.

(Continued from page 112.)

* 290. The **Amer. Nat.**, vol. ix, as far as p. 576, contains the following, and Nos. 291 to 307.

a. Notice of LeBaron's Fourth Annual Report on the Noxious and Beneficial Insects of the State of Illinois (1874), p. 53; of Packard's proposed monograph of Geometrid moths [with request for assistance] (by A. S. Packard, Jr.), pp. 64, 179-180, with figures; of Simon's *Les Arachnides de France*, Tome 1 (1874) (by J. H. Emerton), p. 108-109; of Weyenbergh's **Sobre un Monstruo Dicéfalo (Larva de Chironomus)* [etc.] [*Periódico Zoológico*, Tom. 1, p. 50-57, with a figure] (1874), p. 179; of Lubbock's *On British Wild Flowers considered in Relation to Insects* (1875), p. 245-246; of Scudder's *The Distribution of Insects in New Hampshire* (1874) p. 309; of Morse's *First Book of Zoology* (1875), p. 571. *b.* Note on *Telea Polyphemus* [corrections of and additions to the article cited in *Ree.*, No. 289] (by A. R. Grote), p. 113-114. *c.* Obituary notice of Dr. Gideon Lincecum, p. 191. *d.* *Filaria* in the House Fly [see *Ree.*, No. 259], p. 247. *e.* Danger of using Paris Green in killing Potato Beetles (by R. U. Piper), p. 318. *f.* Cigars Destroyed by Insects [*Catorama simplex*, *Xyloterus?* sp., *Calandra oryzae*], p. 375. *g.* Entomological announcements for the Detroit meeting of the A. A. A. S. (Aug. 1875), p. 380. *h.* Appointment of Prof. Cyrus Thomas as State Entomologist of Illinois, p. 383. *i.* Fertilization of Alpine Flowers by Butterflies, p. 421-422. *j.* Notice of the

excursion of the Cambridge Entomological Club to the White Mts. (1875), p. 480. *l.* A Tachina Parasite of the Squash Bug (*Coreus tristis*), p. 519.

* 291. F. C. CLARK, M. D. The Song of the Cicada. p. 70-74.

Quotations from ancient writers about cicadas; description of the sonorous apparatus.

* 292. J. L. LeCONTE. An Additional Character for the Definition of Rhynchophorous Coleoptera. p. 112-113.

Presence of a straight median suture on the under surface of the head, corresponding with the gular sutures of other Coleoptera.

* 293. THOMAS W. STARR. A Method of Preparing and Mounting Suitable Insects for Microscopical Examination. p. 122-124.

* 294. R. Packenham Williams. Embedding Tissues. p. 124.

Description of an embedding mixture serviceable in cutting sections of the eye of insects.

* 295. H. J. M. Underhill. Spiders' Web. p. 125-126.

Composition of the web and the mechanism by which it is produced.

* 296. E. LEWIS STURTEVANT. Flight of Vanessa Antiope, Feb. 16th. p. 247.

V. Antiope flying at South Framingham, Mass., in freezing weather.

* 297. T. G. GENTRY. The Fertilization of certain Flowers through Insect Agency. p. 263-267.

Cucurbita ovifera fertilized with pollen of *C. pepo*, and vines of *Wistaria sinensis* cross-fertilized by bees. [See Rec., No. 301.]

* 298. A. S. PACKARD, JR. The Invertebrate Cave Fauna of Kentucky and Adjoining States. I. Araneina. p. 274-278.

Notice of the caves visited; distribution of the cave spiders and myriopods; *Spirostrephon cavernarum* a cave species in process of formation. [See Rec., No. 299.]

* 299. J. H. EMERTON. Notes on Spiders from Caves in Kentucky, Virginia and Indiana. p. 278-281, with one plate (i), containing 31 figures.

Describes *Nesticus pallidus*, *N. Carteri*, *Linyphia subterranea*, *L. Weyeri*, *L. incerta* = 5 n. spp.; describes *Anthrobia mammouthia*; figures of each; notes on ten ("eleven") species. [See Rec., No. 298.]

* 300. W. L. CARPENTER. Artificial Hatching of Grasshoppers. p. 312.

Locusts hatched in January, in Dakota, by the heat of camp-fires. Doubts [by the editors] whether the hatching had not taken place in the previous autumn.

* 301. T. MEEHAN. Mr. Gentry's paper on Fertilization through Insect Agency. p. 374-375.

Criticism of the article cited in Rec., No. 297.

* 302. W. F. BUNDY. Colorado Potato Beetle destroyed by the Rose-breasted Grosbeak. p. 375.

Goniaphea ludoviciana an effectual check upon *Doryphora 10-lineata* about Jefferson, Wis., in 1874.

* 303. T. B. COMSTOCK. The European Cabbage Butterfly. p. 426.

Arrival of *Pieris rapae* at Cleveland, Ohio; its ravages there and in Western Pennsylvania; its partial destruction by *Pteromalus puparum*.

* 304. J. L. LECONTE. Address of the Retiring President of the Association. p. 481-498.

Geographical distribution (resp. Coleoptera) considered as a department of palæontology; requisites for its study. Character and criterion of a "species". Difficulty of interpreting the intellectual processes of dissimilar beings.

* 305. *Entom. Monthl. Mag., Jan., 1874.* Importation of useful Insects. p. 520.

Proposition to carry specimens of *Bombus* and *Chrysopa* from England to New Zealand.

* 306. J. W. DAWSON. Address of [Vice President of the A. A. A. S.]. p. 529-552.

p. 516. Comments on "those ingenious, not to say amusing, speculations in which some entomologists and botanists have indulged with reference to the mutual relations of flowers and haustellate insects."

* 307. A. S. PACKARD, JR. *Caloptenus spretus* in Massachusetts. p. 573.

Occurrence of *Caloptenus spretus* at Amherst, Mass.

* 308. **William LeBaron, M.D., STATE ENTOMOLOGIST.** Fourth Annual Report on the Noxious and Beneficial Insects of the State of Illinois. Springfield, 1874. 8vo. pg. xviii, 199, fig. 1-94.

Introduction, p. iii-iv.

OUTLINES OF ENTOMOLOGY, published in connection with the Author's Annual Reports upon Injurious Insects. — Part First. Including

the Order of Coleoptera. — Preface, p. vii–ix. Systematic Index, p. xi–xv. Synopsis of the Tribes of the Coleoptera, p. xvi–xviii. Insects in general [classification; internal anatomy; sounds; sexes; external anatomy; directions for capturing and preserving insects; instinct; economic relations; food; treatment of injurious insects; orismology; nomenclature; division into orders], p. 1–25, fig. 1–2. Order of Coleoptera [characters; external structure; larvæ and pupæ; connection of structure and habits; classificatory divisions and subdivisions as far as the discrimination of the larger or more important genera], p. 26–185, fig. 3–94. Catalogue of the principal Authors who have written upon the Coleoptera, with special reference to the describers of N. American species, or of their Natural History, and with the ordinary abbreviations of their names prefixed [with biographical notes], p. 186–190. Glossary, p. 191–194. Index of Families, Sub-families and Genera, p. 195–199.

* 309. **A. S. Packard, Jr.** Half-Hour Recreations in Natural History. — Division First. — Half-Hours with Insects. Twelve Parts. — Parts 1–8 [each 32 pg.]. Boston, Estes & Lauriat [1874–1875]. 8vo. p. 1–256, with 195 figures and a colored lithographic plate.

1. Insects of the Garden. p. 1–64, fig. 1–53, plate.

Destructiveness, dimorphism, metamorphoses, structure, habits and mutual relations of insects; importance of economic entomology; account of some prominent garden insects; their enemies, their relatives, or means against them.

3. Relations of Insects to Man. p. 65–96, fig. 54–70.

Unity of creation; account of some human parasites, some stinging, some poisonous and some useful insects and arachnids; production of wax and honey.

4. Insects of the Plant House. p. 97–119, fig. 71–86.

Inducements to microscopic study; functions of antennæ; secretions, propagation and embryonic growth of Aphides; metamorphoses, depredations and useful products of Coccidae; means against hot-house pests.

5. Edible Insects. p. 120–128, fig. 87–90.

Locusts, larvæ and other insects good for food or medicine.

6. Insects of the Pond and Stream. p. 129–160, fig. 91–126.

The struggle for existence; ancestry, vital adaptations, respiration and locomotion of aquatic insects.

7. The Population of an Apple Tree. p. 161–192, fig. 127–141.

Habits, depredations and enemies of some insects found in or upon apple-trees; means against them.

8. Insects of the Field. p. 193-224, fig. 142-172.

Variety and activity of field-insects; fertilization of flowers; habits, devastations and enemies of some species; means against them.

9. Insects of the Forest. p. 225-256, fig. 174-195.

Richness of forest faunæ; habits and devastations of some forest insects.

* 310. **Will W. Tracy** and **Geo. Parmelee**. Injurious Insects. Report read before the Peninsula Farmers' Club at Old Mission, Mich. Traverse City, 1874. 8vo. pg. 12.

Descriptions and habits of *Carpocapsa pomonella*, *Conotrachelus nenuphar*, *Aphis mali*, *Aegeria exilis*, *Saperda candida*, *Chrysobothris femorata*, and genus *Agrotis*; means against them. Letters from Dr. J. P. Trimble, of N. J., and Prof. A. J. Cook, of Michigan Agricultural College, upon the same subjects.

* 311. **C. V. Riley**, STATE ENTOMOLOGIST. Seventh Annual Report on the Noxious, Beneficial, and other Insects of the State of Missouri, made to the State Board of Agriculture, pursuant to an appropriation for this purpose from the Legislature of the State. Jefferson City, 1875. 8vo. pg. viii, 196, iv, with 39 figures and a map.

Preface and Table of Contents, p. iii-viii.

a. Migrations, depredations, poisonousness, habits and proper name of *Doryphora 10-lineata*; means against it; proposes for it the new subgeneric title *Thlibocoryna* in place of *Myocorina* preoccupied, p. 1-19, fig. 1. b. "Full account" of *Micropus leucopterus*; description, habits, enemies, history, ravages; means against it; other insects mistaken for it, p. 19-71, fig. 2-11. c. Habits and parasites of *Chrysobothris femorata*; means against it; describes *Bracon charus* n. sp., p. 71-79, fig. 12-13. d. *Anisopteryx vernalis* and *A. pometaria* distinguished; habits and description of every stage of each, p. 80-90, fig. 14-18. e. Supplement to the article in the Sixth Report [see Rec. No. 39] upon *Phylloxera vastatrix*; habits, polymorphism, ravages, distribution; varieties of grape injured by it; means against it; synopsis of the 16 (*Ph. caryae-gummosa*, *Ph. caryae-ren*, *Ph. caryae-fallax* = 3 new) N. A. species of *Phylloxera*; habits and diagnosis of *Ph. Rileyi*, p. 90-121, fig. 19-22. f. History, description, ravages, habits, food, seasons, home, enemies, parasites (especially *Trombidium sericeum*, *Astoma gryllaria*, *Tachina anonyma*, *Sarcophaga carnaria*) and proper name of *Culoptenus (Melanoplus) spretus*; means against it; comparative description of *C. femur-rubrum*; describes *C. Atlantis* n. sp.; other devastating locusts, especially *C. differentialis*, *C. bivittatus*, p. 121-196; fig. 23-39.

* 312. The **Overland Monthly**, vol. xiii, No. 5 (p. 393-488), contains the following.

Notice of Strecker's "Illustrations of Lepidoptera" [for correct title, see Rec., No. 79] and of *Psyche*, p. 485.

* 313. The **Springfield Daily Republician**, Dec. 10, 1874, contains the following.

Notice of Psyche and the Cambridge Entomological Club, p. 3.

* 314. **J. A. Lintner**. The New Apple-worm. Albany [N. Y.] Evening Times, April 12, 1875.

Finding of *Mermis* sp., an entozoan parasite of the larva of *Carpocapsa pomonella* within an apple; habits of *Gordius* parasites of insects.

Proceedings of the Club.

§ 6. ON *EUMENIA ATALA*. MR. SCUDDER said he had lately received from Dr. Packard the larvæ and pupæ of *Eumonia Atala* collected by Dr. Edw. Palmer. This butterfly has been very variously classified by separate authors, having been placed by Godart between the Satyrids and the Brassolids, and among the Erycinids by Lucas. Westwood, in the Genera of Diurnal Lepidoptera, placed it among the Lycænids. Boisduval made a distinct family for it. The character of the cell of the forewings was erroneously stated by Bates, who thought the cell was closed by a vein resembling the others, and suggested that this species with some others might form a separate group among the Lycænids. The existence of a strong vein is only apparent, however, and due to the character of the scales at the apex of the cell. On denuding the wing it is seen that in both sexes the vein which closes the cell is really almost obsolete. The fore tarsi of the males are one-jointed, and spinous. Dr. Palmer was able to assure Mr. Scudder that the larvæ collected really belong to this species. They differ greatly from the larvæ of Lycænids in being but little onisciform, in having distinct though minute, prolegs, an only partially retractile head and but slight enlargement of the prothoracic segment. The pupæ do not have the terminal segment wholly upon the under surface of the body, as is the case in the Lycænids. The larva feeds on *Zamia*. (Dec. 11, 1874.)

§ 7. *VANESSA URTICAE* IN NORTH AMERICA. MR. OUTRAM BANGS exhibited a worn specimen of *Vanessa urticae*, which he had collected on the wing, at Watertown, Mass., a few years ago. (June 11, 1875.)